

PATENT Att'y Dkt: 1927/46001

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

RIESS et al

Serial No.: 09/836,281

Filed: April 18, 2001

For: RELIABLE SYMBOLS AS A MEANS

OF IMPROVING THE

PERFORMANCE OF INFORMATION

TRANSMISSION SYSTEMS

Examiner: Not assigned

Art Unit: 2631

#### PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

Preliminary to examination of the above-identified application, please amend the application as follows:

#### IN THE SPECIFICATION:

Please add the following section immediately after the title:

# **CROSS-REFERENCE TO RELATED APPLICATIONS**

This application is a continuation-in-part of the following applications: WIPO 00/02648, filed July 10, 2000 (which benefits from the priority of UK application 9926167.4, filed November 4, 1999), and WIPO 0/02634, filed July 10, 2000 (which benefits from the priority of UK application 16938.3, also filed July 10, 2000), the disclosure of which is incorporated herein by reference. Certain claims may benefit from the priority of these applications.

#### IN THE CLAIMS:

Please amend the claims 11-18 as follows. A clean copy of the claims, as required by rule, are provided in the attached Appendix.

- 11. (Amended) The method of claim  $44\underline{10}$ , wherein the adding adds an absolute value of the sample  $y_{n-i}$  to the reliability factor.
- 12. (Amended) The method of claim  $44\underline{10}$ , wherein the adding adds a scaled value of the sample  $y_{n-i}$  to the reliability factor, the value scaled in accordance with a predetermined coefficient  $c_i$ .
- 13. (Amended) The method of claim  $41\underline{10}$ , wherein the adding adds the power of the sample  $y_{n-i}$  to the reliability factor.
- 14. (Amended) The method of claim 4310, wherein the predetermined limit is half a width of an annular constellation ring in which the candidate sample is observed.
- 15. (Amended) The method of claim  $44\underline{10}$ , wherein the predetermined limit is  $(K_1 + K_2)d_{min}$  where  $d_{min}$  is half a distance between two constellation points that are closest together in a governing constellation.
- 16. (Amended) The method of claim 4110, wherein the predetermined limit varies over time.
- 17. (Amended) The method of claim 4410, further comprising determining a rate at which reliable symbols are identified, and

if the rate is less than a predetermined value, increasing the predetermined limit.

18. (Amended) The method of claim 4410, further comprising determining a rate at which reliable symbols are identified, and

if the rate exceeds a second predetermined value, decreasing the predetermined limit.

# **REMARKS**

The application contains claims 1-57. Claims 11-18 have been amended to correct a clerical error. No surrender of subject matter is intended by any amendment made by this paper.

Attached hereto is version of the specification and claims by the current amendment. The attached page is captioned "Appendix".

Respectfully submitted,

Date: 7/16/2001

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### **APPENDIX**

## **IN THE CLAIMS:**

- 11. (Amended) The method of claim 10, wherein the adding adds an absolute value of the sample  $y_{n-i}$  to the reliability factor.
- 12. (Amended) The method of claim 10, wherein the adding adds a scaled value of the sample  $y_{n-i}$  to the reliability factor, the value scaled in accordance with a predetermined coefficient  $c_i$ .
- 13. (Amended) The method of claim 10, wherein the adding adds the power of the sample  $y_{n-1}$  to the reliability factor.
- 14. (Amended) The method of claim 10, wherein the predetermined limit is half a width of an annular constellation ring in which the candidate sample is observed.
- 15. (Amended) The method of claim 10, wherein the predetermined limit is  $(K_1 + K_2)d_{min}$  where  $d_{min}$  is half a distance between two constellation points that are closest together in a governing constellation.
- 16. (Amended) The method of claim 10, wherein the predetermined limit varies over time.
- 17. (Amended) The method of claim 10, further comprising determining a rate at which reliable symbols are identified, and

if the rate is less than a predetermined value, increasing the predetermined limit.

18. (Amended) The method of claim 10, further comprising determining a rate at which reliable symbols are identified, and

if the rate exceeds a second predetermined value, decreasing the predetermined limit.



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## **PATENT**

Docket No. 11927/46001

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Inventors

RIESS, et al.

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09/836,281

Filed

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For

RELIABLE SYMBOLS AS A MEANS FOR

IMPROVING THE PERFORMANCE OF

INFORMATION TRANSMISSION SYSTEMS

GROUP ART UNIT

Unassigned

**EXAMINER** 

Unassigned

ASSISTANT COMMISSIONER FOR PATENTS Washington, DC 20231

#### PROPOSED DRAWINGS CHANGES

Sir:

Applicants hereby propose to amend the drawings as shown in red ink in Fig. 6 (Box 3020). The Examiner's approval is solicited.

Respectfully submitted,

**KENYON & KENYON** 

Date: June 13, 2001

Robert L. Hails, Jr.

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